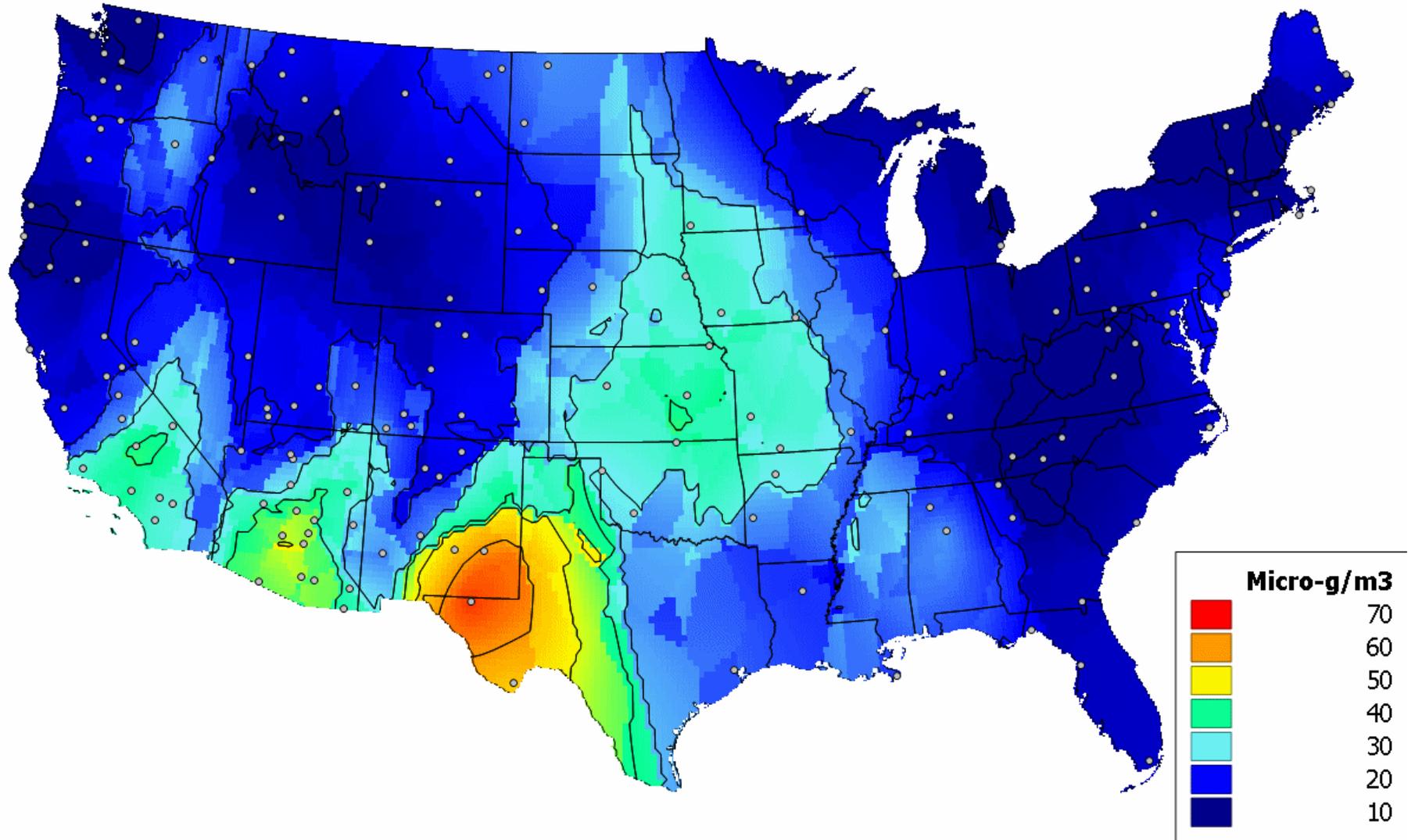


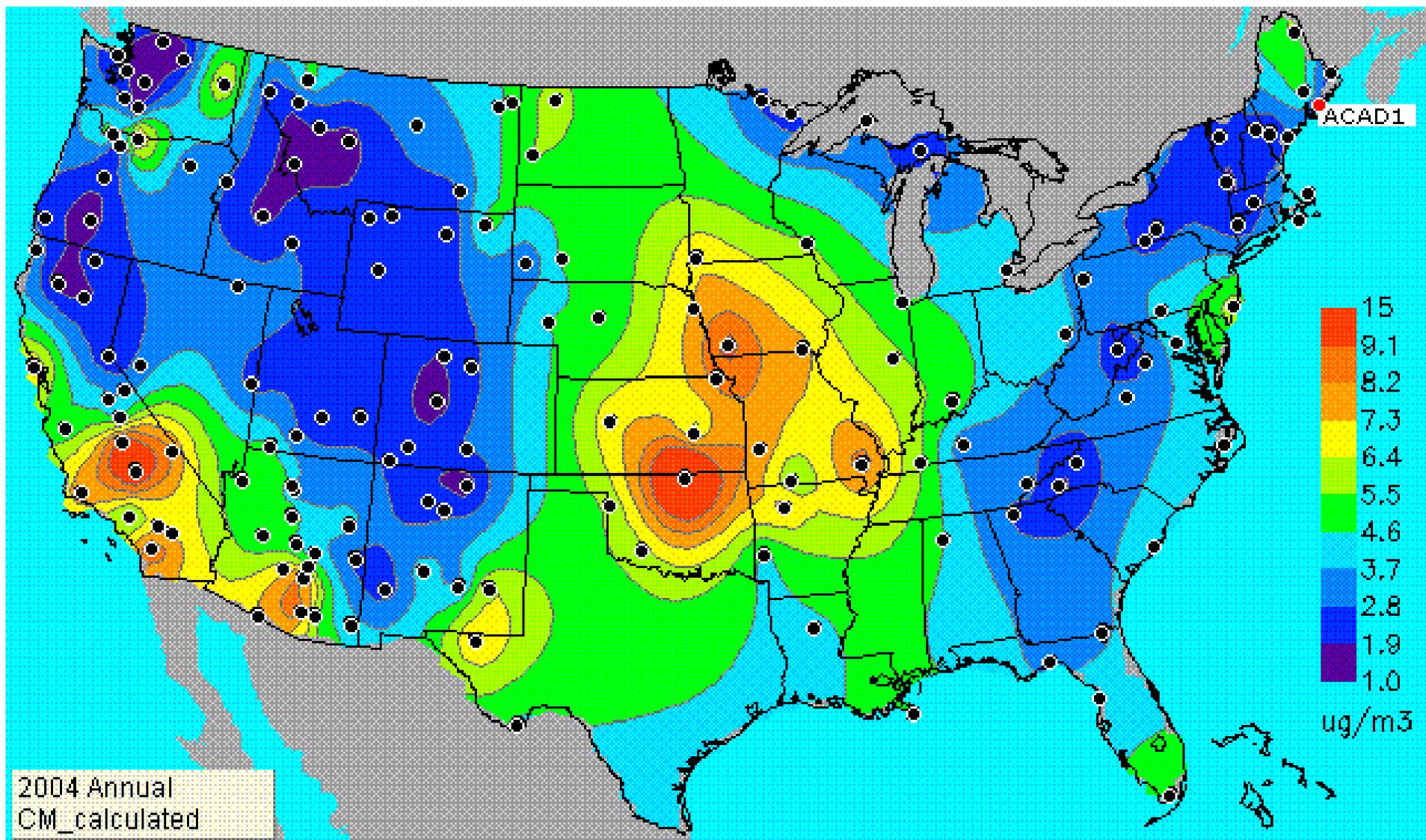
Map of the Highest Annual 98th Percentile PM_{coarse} Concentrations
IMPROVE Network sites (2002 through 2004).



PM_{coarse} 98th percentile concentrations for sites with three year mean values above 30ug/m3.

Site	State	2002	2003	2004	Mean	Max
Guadalupe Mountains NP	TX	41.72	109.00	56.71	69.14	109.00
Birmingham	AL			54.51	54.51	54.51
Phoenix	AZ	57.18	55.00	35.08	49.09	57.18
Salt Creek	NM	39.89	73.75	24.67	46.10	73.75
Douglas	AZ			43.63	43.63	43.63
Cherokee Nation	OK	32.23	50.77	40.21	41.07	50.77
Virgin Islands NP	VI	37.44	39.12	43.63	40.06	43.63
Saguaro West	AZ	34.17	58.95	22.92	38.68	58.95
El Dorado Springs	MO	54.78	35.35	25.43	38.52	54.78
Queen Valley	AZ	31.08	55.02	27.87	37.99	55.02
Dome Lands Wilderness	CA	36.07	28.39	41.30	35.26	41.30
Walker River Paiute Tribe	NV		30.75	37.20	33.98	37.20
Cedar Bluff	KS	48.56	29.23	23.61	33.80	48.56
San Gabriel	CA	65.11	18.14	17.16	33.47	65.11
Omaha	NE		29.70	34.11	31.91	34.11
Death Valley NP	CA	41.77	20.63	32.77	31.72	41.77
Spokane Res.	WA	38.68	34.58	21.58	31.61	38.68
Sycamore Canyon	AZ	34.88	31.96	27.78	31.54	34.88
Viking Lake	IA	28.75	35.87	27.87	30.83	35.87
Blue Mounds	MN	23.80	38.26	28.47	30.17	38.26

Map showing the annual PM_{coarse} concentration from the IMPROVE network for 2004.



Chiricahua Typical Haze Day



Chiricahua 20% Worst Haze Day



Chiricahua Typical + 50 $\mu\text{g}/\text{m}^3$ PM Coarse



Chiricahua Typical + 70 $\mu\text{g}/\text{m}^3$ PM Coarse



Chiricahua Typical + 100 $\mu\text{g}/\text{m}^3$ PM Coarse



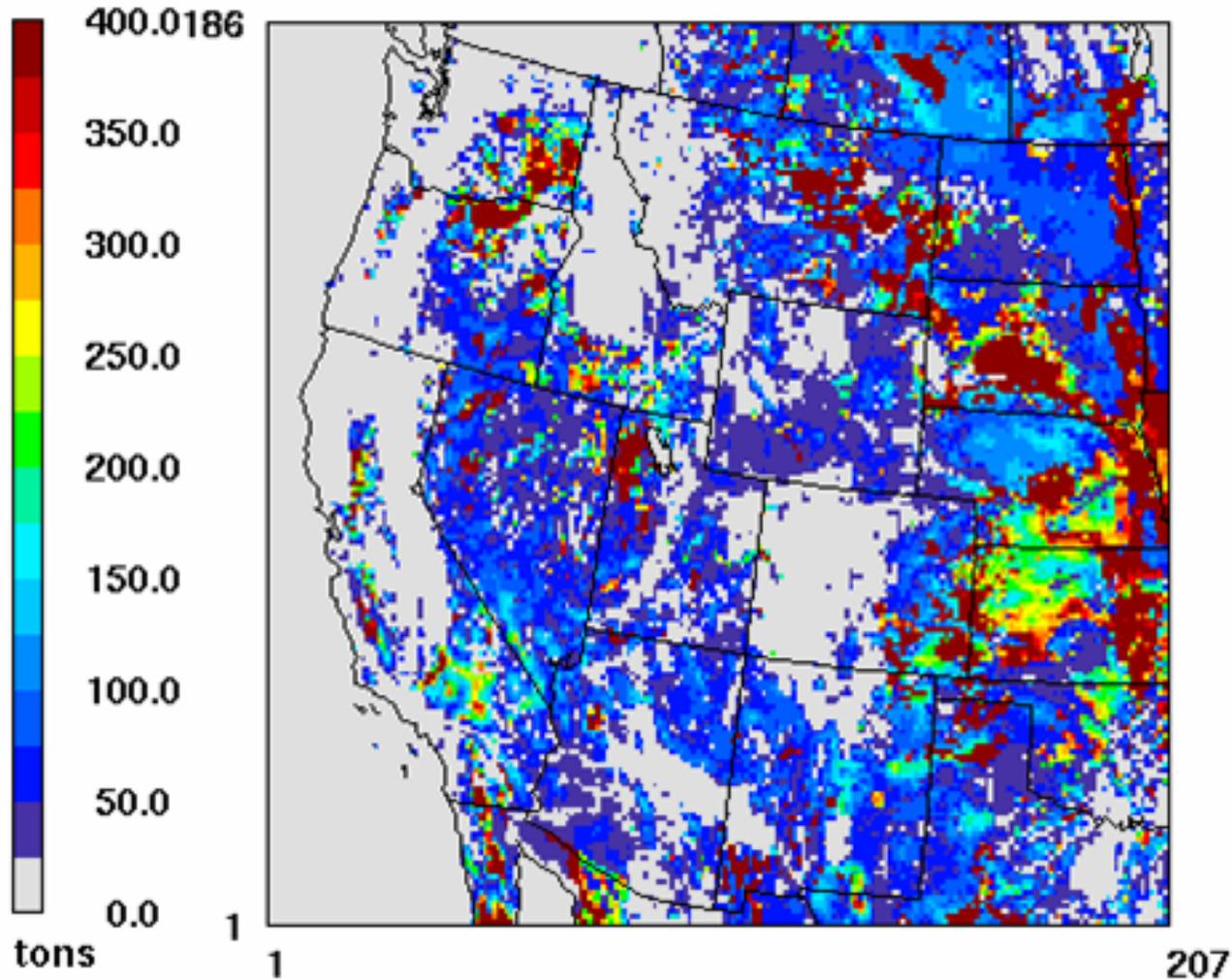
Chiricahua Typical + 135 $\mu\text{g}/\text{m}^3$ PM Coarse



Map of the model-estimated wind-blown dust emissions for 2002.

PMC

Wind_Blown_Dust_Emissions_12-km
2002_Annual_2001_LULC_(TFs_applied)



December 31,2002 0:00:00
Min= 0.0 at (1,1), Max= 3371.4 at (55,1)

Proposed particle size ratios for AP-42

Fugitive dust source category	AP-42 section	PM _{2.5} /PM ₁₀ Ratio	
		Current	Proposed
Paved Roads	13.2.1	0.25	0.15
Unpaved Roads (Public & Industrial)	13.2.2	0.15	0.1
Construction & Demolition	–	0.208 ¹	0.1
Aggregate Handling & Storage Piles	13.2.4	0.314	0.1 (traffic) 0.15 (transfer)
Industrial Wind Erosion	13.2.5	0.40	0.15
Agricultural Tilling	–	0.222 ²	0.2 (no change)
Open Area Wind Erosion	–	-	0.15

Notes:

¹ AP-42 Section 13.2.3 suggests using emission factors for individual dust producing activities, e.g., materials handling and unpaved roads. The WRAP Fugitive Dust Handbook recommends using a fine fraction ratio of 0.208 from a report prepared for the US EPA, Estimating Particulate Matter Emissions from Construction Operations (MRI, 1999).

² Agricultural tilling was dropped from the 5th edition of AP-42. The WRAP Fugitive Dust Handbook recommends using a fine fraction ratio of 0.222 from Section 7.4 of the California Air Resources Board's Emission Inventory Methodology (CARB, 2003).